

# **Develop A Community Resilience Plan**

**Ch 5: Develop Plan**

**Ch 6: Approve & Implement Plan**

**Ch 7: Future Directions**

**Presenter:**

**Terri McAllister, PhD, PE  
Community Resilience Group Leader  
NIST**

# Ch 5. Plan Development

- Evaluate gaps between desired and anticipated performance
- Identify solutions to address gaps
  - Administrative solutions
  - Construction solutions
- Prioritize solutions and develop implementation strategy
  - Short term
  - Long term



# Evaluate Gaps

- Prioritize gaps in performance based on community long-term goals and social needs during recovery

Functional Category: Cluster	Overall Recovery Time for Hazard and Level Listed								
	Expected Hazard Level								
	Phase 1 – Short-Term			Phase 1 – Short-Term			Phase 1 – Short-Term		
	Days 0	Days 1	Days 1-3	Wks 1-4	Wks 4-8	Wks 8-12	Mos 4	Mos 4-24	Mos 24+
<b>Critical Facilities</b>									
Buildings	100%							25	
Transportation		90%	25						
Energy		90%	25						
Water			90%	25					
Waste Water				100%				25	
Communication		90%		25					
<b>Emergency Housing</b>									
Buildings				100%					25
Transportation			90%	25					
Energy			90%	25					
Water			90%	25					
Waste Water				100%				25	
Communication				90%	25				



# Identify Solutions

- Community goals

- Public safety
- Redirect threat
- Reduce damage
- Rapid recovery

- Identify alternative solutions

- Multiple stages
- Temporary and permanent
- Administrative
- Construction

- Flood plain management

- Reduce threat: relocate, elevate

- Wind and seismic preparedness

- Strengthen: retrofit, redundancy

- Recovery Plans

- Mutual aid agreements
- Improvement plans





# Identify Solutions - Administrative

1. Resilience office with designated leadership.
2. Integrate resilience plans with other community plans.
3. Prioritize mitigation grant requests.
4. Adopt land use planning regulations.
5. Develop processes and guidelines for post-event assessments and repairs.
6. Collaborate with adjacent communities to promote common understanding and opportunities for mutual aid.
7. Publish the performance gaps and resilience plans in transparent and publicly available methods.
8. Collaborate with State and Federal owned and leased properties to meet community resilience regulations or codes.
9. Develop and implement education and awareness programs.



# Identify Solutions - Construction

## Existing Construction

1. Natural systems protection - sediment and erosion control, stream restoration, conservation easements, wetland restoration.
2. Retrofitting of public buildings and infrastructure systems.
3. Incentives and financial support for retrofitting of private buildings and infrastructure systems.
4. Mandatory retrofitting programs through local ordinances.
5. Develop and implement education and awareness programs.

The Mandatory Soft Story Retrofit program was created in 2013 to ensure the safety and resilience of San Francisco through the retrofit of all older, wood-framed, multi-family buildings with a soft-story condition.



# Identify Solutions - Construction

## New Construction

1. Adopt and enforce the latest national model building codes, standards, and regulations for the built environment.
2. Enhance minimum requirements to support resilience goals
3. Ensure building department enforces codes and standards during permitting and construction inspections.
4. Adopt local ordinances that support community resilience goals.



North Texas 2050

The North Texas region (e.g., Dallas and Fort Worth) is the fourth largest metropolitan region in the country. It has more than 200 communities and is expected to grow from 6 to 12 million residents by 2050.

The plan integrates recommendations for land use, natural resources, transportation, housing, water and wastewater infrastructure, parks and open spaces.





# Prioritize Solutions and Develop Implementation Strategy

- Select solutions to address priority performance gaps
  - Determine how alternative solutions can be combined to meet community goals
  - Consider collaborative projects
- Develop implementation strategies
  - Quantify benefits through impact on public safety and social needs
  - Evaluate economic impacts on the community - costs and savings
  - Consider short and long term benefits versus costs.
- Determine preferred implementation strategy





# Ch 6. Plan Approval, Implementation and Maintenance

## Plan Approval

- Document proposed implementation strategy and supporting assessments and solutions
- Share with all stakeholders and community members
  - Public Meetings, review and comment period
- Finalize strategy based on input and community support



**APPROVED**

Final  
Community  
Plan:  
Implementation  
Strategy



# Plan Approval, Implementation and Maintenance

## Plan Implementation

- Document proposed implementation strategy and supporting assessments and solutions
- Share with all stakeholders and community members
  - Public Meetings, review and comment period
- Finalize strategy based on input and community support

## Plan Maintenance

- Review strategy and solutions on a regular basis
- Modify or update as needed



# Ch 7. Future Directions

## Feedback on the Draft Guide

- NIST encourages comments and feedback on the Guide.
- It will be especially valuable to have communities and those with responsibilities for and expertise with the built environment to offer recommendations for improvements.
- *Is this Guide useful in helping communities to better plan for disaster resilience? What is useful? what is lacking?*
- *How can the Guide be better organized or presented?*
- *Will this Guide lead to improved resilience planning and execution at the community level?*





# Future Directions

## Disaster Resilience Standards Panel (DRSP)

- Independent organization
- Engage all stakeholders for community resilience issues
- Activities
  - Support of continued development and implementation of Guide
  - Support development of Implementation Guidelines
  - Identify and promote need for improved codes and standards, best practices, and tools
- Applications for membership will be available online in May 2015
- First Meeting: Aug 12-13, 2015, in DC area

